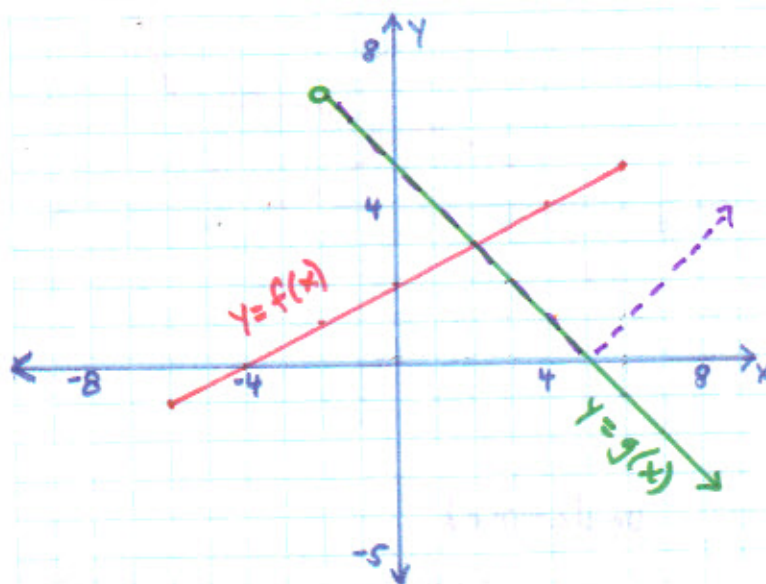


Solution Key Davis

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Algebra II – Delta & Eta

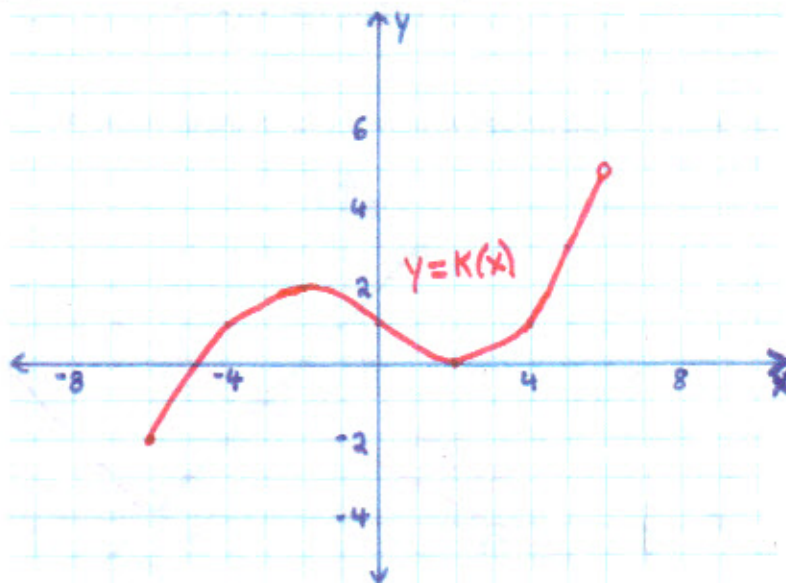
Analyzing Functions Practice Quiz
September 16, 2014

Given the graphs of $f(x)$ and $g(x)$ shown below, answer each of the questions # 1-13.



1. Determine $f(0) = 2$
2. Determine the value of x for which $g(x) = 0$ $x = 5$
3. Determine $f(6) - g(6) = 5 - -1 = 5 + 1 = 6$
4. What is the value of $g(x)$ when $x = 0$? $g(0) = 5$
5. For what values of x is $f(x) > 0$ $(-4, 6]$
6. On what interval is $f(x) \leq 0$ $[-6, -4]$
7. Determine the value of $f(g(7)) = f(-2) = 1$
8. True or False: $g(7) > 0$ False
9. Determine the domain of $f(x)$ $D: [-6, 6]$
10. True or False: The range of $f(x)$ is $R: [-1, 5]$ True
11. True or False: The domain of $g(x)$ is $D: (-2, \infty)$ True
12. Determine the range of $g(x)$ $R: (-\infty, 7)$
13. On the same coordinate plane above, draw the graph of $|g(x)|$ See the dashed purple graph above

Given the graph of $k(x)$ shown below, answer each of the questions # 1-15.



1. Determine $k(7)$ = undefined
2. How many times does the line with equation $y = 1$ intersect the graph of $k(x)$? 3 times
3. How many times does the line with equation $y = 2$ intersect the graph of $k(x)$? 2 times
4. How many times does the line with equation $y = 5$ intersect the graph of $k(x)$? 0 times
5. Determine the value of $k(k(-2)) = k(2) = 0$
6. On what interval is the graph of $k(x)$ decreasing? $[-2, 2]$
7. On what intervals is the graph of $k(x)$ increasing? $[-6, -2] \cup [2, 6]$
8. Determine the domain of $k(x)$ $D: [-6, 6)$
9. Determine the range of $k(x)$ $R: [-2, 5]$
10. Determine the value of $k(-6) + k(4) = -2 + 1 = -1$
11. Determine the value of $k(-4) \times k(5) = (1)(3) = 3$
12. Determine the value of $|k(-5)| = |-2| = 0.2$
13. Determine the interval on which $k(x) < 0$ $[-6, -4.7)$
14. Determine the interval on which $k(x) \geq 0$ $[-4.7, 6)$
15. For approximately what value of x does $k(x) = 4$? $x = 5.5$